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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/010,169

11/13/2001

Richard L. Segar

169.12-0502

7782

36733 7590 03/21/2007

SEAGATE TECHNOLOGY LLC  
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EXAMINER

MILLER, BRIAN E

ART UNIT

PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/010,169

**Applicant(s)**

SEGAR ET AL.

**Examiner**

Brian E. Miller

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 43-47, 49-52 and 54-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 43-47, 49-52 and 54-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Claims 43-47, 49-52, 54-57 are now pending.

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/5/06 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

3. Claims 43-47, 49-52, 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainslie et al (US 4,761,699) in view of Honda (US 6,349,021). (As per claims 43 & 52) Ainslie et al discloses an actuation assembly, as shown in at least FIGs. 4-7, including: a gimbal 12; a slider 16; a slider bond pad for electrically connecting the slider 16 to a trace layer 47, the slider bond pad having two layers 41/84; a ball bond 82, positioned on the trace layer 47 for connecting the slider bond pad to the trace layer; a notch (or indentation) (unnumbered-though clearly shown in FIGs. 4 & 5) located below the slider bond pad and on an edge 26 of the slider, wherein the edge is adjacent the gimbal 16; wherein the notch and the slider bond pad are considered to "provide compensation for potential misalignment between the slider and the trace

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layer,” since this intended use language is not considered to encompass any claimed structural difference over Ainslie et al. (As per claim 47) Ainslie et al is further considered to comprise a “pad extension” 41 adjacent the front side and a pad 84 adjacent the pad extension, and a “ball bond” 82 for electrically connecting the pad to the flex on suspension bond pad.

With respect to claims 43, 47, 49 & 52, 54, as amended, Ainslie et al remains silent as to the first layer (pad extension) 41 comprising nickel iron (Ni-Fe) and the second layer (bond pad) comprising gold.

Honda, however, discloses (shown in FIG. 9 mainly) an electrically conductive slider contact pad 3, which includes a nickel-iron alloy and a plating of gold. Bump connections 4a2, 4b2, 4c1, 4d2 and bumps (not shown) are formed of Ni-Fe, then a protective layer 6 is provided, however, is removed from these bumps then plated with a layer of gold (see col. 2, lines 45-58).

From this teaching of Honda, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the Ni-Fe/gold laminate slider bond pad as taught by Honda, onto the bonding pad/termination pad 41/84 of Ainslie et al. The motivation would have been: lacking any unobvious or unexpected results, as NiFe and gold are known to be a very good conductor(s) and contain corrosion-resistant properties, substituting one good conductor for another would have been readily realized by a skilled artisan.

With respect to claims 44-46, and the dimensional parameters of the notch/bond pad, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such dimensions in the course of routine engineering optimization/experimentation. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in these claims is considered to be within the level

of ordinary skill in the art. Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

With respect to claims 50-51 & 55-57, as they have similar dimensional limitations as to claims 44-46, they are rejected under the same basis.

#### ***Response to Amendment***

4. Applicant's arguments filed 11/6/06 have been considered but are considered moot in view of the newly applied reference to Honda, as discussed, *supra*.

A...Applicants' assert with respect to all the independent claims 43, 47 & 52 as now amended and the obviousness rejection of Ainslie in view of Pihl, that "Pihl's contact pad 82 is nothing like the terminal pad of Ainslie et al. Rather, the contact pad of Pihl repeatedly physically contacts the magnet of the electromagnetic indicating device. The contact pad of Pihl is not a slider bond pad, but rather a mechanical pad for a device that is not a slider. Therefore, as

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required by In re Lee, there remains no objective evidence to combine the stated references to obtain a "pad extension comprising nickel iron". See also Princeton Biochemicals Inc. v. Beckman Coulter Inc., 75 USPQ2d 1051, 1055 (Fed. Cir. 2005) ("[T]his court expressed skepticism about invoking the knowledge of a skilled artisan to supply the motivation to combine on a scanty record." Withdrawal of the rejections is respectfully requested."

In view of the newly cited reference to Honda and the teaching of the two layer bond pad including Ni-Fe and gold on a slider bond pad, this argument is considered moot.

**B...** Furthermore, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the two layer bonding pad of Honda is specifically shown to be on a slider bonding pad, which is in the same environment of Ainslie's teachings, and thus a skilled artisan would have readily provided the teachings of Honda to that of Ainslie et al, in order to provide for a well known slider bonding pad configuration.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**Brian E. Miller**  
**Primary Examiner**  
**Art Unit 2627**

BEM  
March 13, 2007